

REMARKS/ARGUMENTS

The office action dated August 3, 2004, has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of this application are respectfully requested.

Claims 1-51 remain in this application.

Rejections Under 35 U.S.C. § 102

Claims 1-7, 14, 20, 24, 25, 30-32, 34, 38, 39, 43, 44, and 48 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,923,655 to Veschi et al. The office action characterizes Veschi as teaching a time-slicing digital video broadcasting transmitter system comprising: an encapsulator that forms at least one packet header for a current packet of a current burst of packets, wherein the at least one packet header contains time-slice information that includes a time-slice parameter specifying a relationship between the current packet of the current burst of packets and a subsequent burst of packets. Applicant respectfully disagrees with this characterization of Veschi.

Veschi does not properly support a prima facie case of anticipation of claim 1 because Veschi does not disclose "a time-slice parameter specifying a relationship between the current packet of the current burst of packets and a subsequent burst of packets."

Claim 1 is directed to a time-slicing digital video broadcasting transmitter system comprising: a buffer that receives at least one of digital video content and digital audio content from an information service provider; an encapsulator that receives the buffered content from the buffer and that forms at least one packet header for a current packet of a current burst of packets, wherein the current packet contains a first portion of the buffered content, wherein the at least one packet header contains time-slice information that includes a time-slice parameter specifying a relationship between the current packet of the current burst of packets and a subsequent burst of packets that contains a second portion of the buffered content; and a digital video broadcast transmitter that transmits the current burst of packets and the subsequent burst of packets.

Veschi discloses a system for communicating audio/video data in a packet-based computer network in which transmission of data packets through the network requires variable

periods of transmission time. The system comprises: (1) a packet-assembly circuit for constructing a data packet from a portion of a stream of digital audio/video data corresponding to an audio/video signal and (2) a packet-disassembly circuit, having an associated buffer, for receiving the data packet. The packet-assembly circuit generates a position identifier indicating a temporal position of the portion of the stream relative to an immediately preceding portion of the stream, inserts the position identifier into the data packet, and queues the data packet for transmission through a backbone of the computer network. The packet-disassembly circuit inserts the portion of the data stream into an absolute location of the buffer based on the position identifier so that the portion of the data stream is synchronized with the immediately preceding portion of the data stream in the buffer to compensate for the variable periods of transmission time. (Veschi, Abstract, col. 13, line 33, through col. 16, line 31).

The position identifier 370 of Veschi is used to specify an absolute location within the receiving buffer on a packet-by-packet basis. Veschi discloses that a packet's position identifier determines its location in the receiving buffer 510, which, in turn, synchronizes the packet's audio/video data sample with adjacent audio-video data samples in the receiving buffer 510 to compensate for variable periods of transmission time. (Col. 13, lines 34-45). The synchronization of a packet's data sample in the receiving buffer with an immediately following data sample is not achieved, however, until the immediately following data sample's packet is received and the immediately following data packet's position identifier indicates an absolute location in the receiving buffer into which the immediately following data packet's data sample should be placed. Accordingly, the position identifier of a current packet indicates a receiving-buffer position for the packet's audio/video data sample such that the current packet's data sample becomes synchronized in the receiving buffer relative to the buffer position of an immediately preceding packet's audio/video data sample. As such, Veschi does not disclose using a current packet's position identifier (or any other data within the current packet) to specify a relationship between the current packet and a subsequent packet or a subsequent burst of packets. For at least these reasons, Veschi does not disclose "a time-slice parameter specifying a relationship between the current packet of the current burst of packets and a subsequent burst of packets."

The invention of claim 1 provides a significant functional advantage relative to the prior art of record, including Veschi. As discussed above, the position identifier disclosed by Veschi does not specify a relationship between a current packet of a current burst of packets and a subsequent burst of packets. By specifying such a relationship, the time-slice parameter of claim 1, unlike the position identifier of Veschi, allows a digital-video-broadcast receiver to enter a power-saving mode for a duration, which is based on the time-slice parameter, between receiving the current burst of packets and a next burst of packets.

For at least the foregoing reasons, applicant respectfully submits that Veschi fails to establish prima facie anticipation of claim 1, which is, therefore, in condition for allowance.

Claim 30 contains limitations that are analogous to the limitations discussed above in connection with claim 1. Claim 30 is, therefore, allowable for at least reasons similar to those discussed above with respect to claim 1.

Regarding claims 14, 24, and 38, the office action states that Veschi teaches a receiver that corresponds to the transmitter and that the receiver comprises an application processor for extracting information specifying a relationship between a current packet of a current burst of packets and a subsequent burst of packets. Claims 14, 24, and 38 contain limitations that are analogous to the limitations discussed above in connection with claim 1. Therefore, for reasons similar to those discussed above with respect to claim 1, applicant respectfully disagrees with this characterization of Veschi and respectfully submits that claims 12, 24, and 38 are allowable.

Regarding claims 2, 20, 25, 31, 39, 44, and 48, the office action states that Veschi teaches that the time-slice information specifies, in a way that is independent of a number of data packet-transmission intervals, an amount of time that elapses between transmission of the current packet and transmission of a first-transmitted packet of the subsequent burst of packets. FIG. 5 is cited regarding particular time intervals and Table 1 in col. 14 is cited regarding the length of time in milliseconds corresponding to position identifiers. Col. 13, line 33, through col. 16, line 55 is also cited. Applicant respectfully disagrees with this characterization of Veschi's teachings. As discussed above in connection with claim 1, the position identifier specifies an absolute position in the receiving buffer into which a packet's data sample should be placed. Neither the position identifier nor any other information within a current packet, as disclosed by Veschi, specifies in a

way that is independent of a number of data packet-transmission intervals, an amount of time that elapses between transmission of the current packet and transmission of a first-transmitted packet of a subsequent burst of packets. Therefore, and for the reasons discussed above in connection with claim 1, applicant respectfully submits that claims 2, 20, 25, 31, 39, 44, and 48 are allowable.

Regarding claims 4 and 32, the office action states that Veschi teaches that the time-slice information includes a time-slice index for numbering originally transmitted bursts of packets. Applicant respectfully disagrees. Veschi explicitly states that the position identifier is "fundamentally different from a packet sequence number." As discussed above in connection with claim 1, the position identifier specifies an absolute position in the receiving buffer into which a packet's data sample should be placed. Neither the position identifier nor any other information in a packet acts as an index for numbering originally transmitted bursts of packets. Therefore, and for the reasons discussed above in connection with claim 1, applicant respectfully submits that claims 4 and 32 are allowable.

Claim Rejections – 35 USC § 103

Dependent claims 8-13, 15-19, 21-23, 26-29, 33, 35-37, 40-42, 45-47, and 49-51 were rejected under 35 U.S.C. 103(a) as being unpatentable over Veschi. These dependent claims properly depend upon one of the independent claims discussed above. These dependent claims are, therefore, in condition for allowance for at least the reasons set forth above in connection with the independent claims upon which these dependent claims depend.

CONCLUSION

It is believed that no fee is required for this submission. If any fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733, accordingly.

All rejections having been addressed, applicant respectfully submits that this application is in condition for allowance, and respectfully requests reconsideration of the application and prompt issuance of a Notice of Allowance.

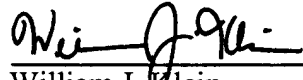
Appln. No.: 10/075,150
Amendment dated September 30, 2004
Reply to Office Action dated August 3, 2004

Respectfully submitted,

BANNER & WITCOFF, LTD.

Dated: September 30, 2004

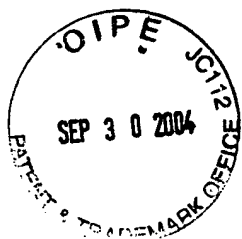
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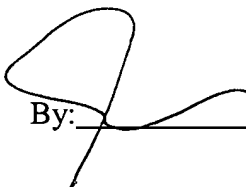


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By:  _____

Pekonen, U.S. Patent Application No. 10/075,150 for "Time-slice signaling for broadband digital broadcasting"

- Transmittal Form (in duplicate)
- Amendment (15 pages)
- Return Receipt Postcard